



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/805,234

03/22/2004

Toshihiro Hatakeyama

1131-0506PUS1

9040

2292

7590

02/09/2005

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

HARVEY, JAMES R

ART UNIT

PAPER NUMBER

2833

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/805,234

Applicant(s)

HATAKEYAMA, TOSHIHIRO

Examiner

James R. Harvey

Art Unit

2833

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16 is/are allowed.
- 6) ☒ Claim(s) 1-7, 10-12 and 14 is/are rejected.
- 7) ☒ Claim(s) 8, 9, 13 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3-22-04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

- The Information Disclosure statement(s) and related documents that were filed on 3-22-04 have been considered.

Priority

- Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

- Figure(s) 11 should be designated by a legend such as --Prior Art-- because on page 7, line 1 of applicant's specification, figure 11 is indicated to be prior art. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
- The drawings are objected to because the cross-hatching is improper. See MPEP 608.02.

For example, portions of the drawings in section and made of an insulated material must be crosshatched with alternating thick and thin lines, not with just thin lines.

- Please note that drawing corrections will no longer be held in abeyance. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application.
- If drawing correction are not submitted with the response to this office action, the response will be consider a Non-Responsive Reply and the following paragraph will apply:

The reply filed on (...) is not fully responsive to the prior Office Action because: (...) Since the period for reply set forth in the prior Office action has expired, this application will

Art Unit: 2833

become abandoned unless applicant corrects the deficiency and obtains an extension of time under 37 CFR 1.136(a).

The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. In no case may an applicant reply outside the SIX (6) MONTH statutory period or obtain an extension for more than FIVE (5) MONTHS beyond the date for reply set forth in an Office action. A fully responsive reply must be timely filed to avoid abandonment of this application.

Claim Objections

- Claim(s) 3 is objected to because of the following informalities:
 - In reference to Claim(s) 3, line 3; the recitation “that portion” lacks proper antecedent basis. The portion of the recitation originates from the recitation “a length larger than a thickness of that portion of a printed board”. For purposes of examination, it is assumed that the language is intended to mean “a length larger than the thickness of a printed board.” An examination based on the merits, as best understood, is addressed below.
 - Appropriate response to the above is required.

Claim Rejections - 35 USC § 102

- The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2833

** Claim(s) 1, 2 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Homfeldt (5620290).

-- In reference to Claim(s) 1, Homfeldt shows (cover sheet)

a ground terminal body 10 formed into an annular shape as viewed in plan; and
at least one connection portion 16 formed integrally with
the ground terminal body 10, the connection portion 16 being bendable (as best seen in figure 3) and extending from an inner circumference of the ground terminal body 10 toward a center of the ground terminal.

In particular reference to the recitation "ground" this is seen to be for the intended use of the claimed structure and is given little patentable weight, since it has been held a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Further, the claim language is not seen to claim any structure that would inhibit the reference from being used for the same purpose as the intended use recitations of the claim.

-- In reference to Claim(s) 2, Homfeldt shows (cover sheet) 10 the ground terminal is formed into a circular annular shape.

-- In reference to Claim(s) 4, Homfeldt shows (cover sheet)

the ground terminal has a plurality of connection portions 16 that are formed integrally with the ground terminal body 10 and spaced from one another in a direction of the inner circumference of the ground terminal body, these connection portions being bendable (figure 3) and extending from the inner circumference of the ground terminal body 10 toward the

Art Unit: 2833

center of the ground terminal.

** Claim(s) 1,2,4-7 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Reimer (3670409).

-- In reference to Claim(s) 1, Reimer shows (figure 3)

a ground terminal body 10 (figure 3) formed into an annular shape as viewed in plan; and

at least one connection portion 18 formed integrally with the ground terminal body 10, the connection portion 18 being bendable and extending from an inner circumference of the ground terminal body toward a center of the ground terminal.

In particular reference to the recitation "ground" this is seen to be for the intended use of the claimed structure and is given little patentable weight, since it has been held a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Further, the claim language is not seen to claim any structure that would inhibit the reference from being used for the same purpose as the intended use recitations of the claim.

-- In reference to Claim(s) 2, 10 the ground terminal is formed into a circular annular shape or a polygonal annular shape.

-- In reference to Claim(s) 4, Reimer shows (figure 3) the ground terminal has a plurality of connection portions 18 that are formed integrally with the ground terminal body and spaced from one another in a direction of the inner circumference of the ground terminal body, these

Art Unit: 2833

connection portions being bendable (figure 2) and extending from the inner circumference of the ground terminal body toward the center of the ground terminal.

-- In reference to Claim(s) 5, Reimer (figure 3) shows the plurality of connection portions 18 of the ground terminal are symmetric with respect to the center of the ground terminal as viewed in plan.

-- In reference to Claim(s) 6, Reimer shows (figure 4) the ground terminal body 10 is used to establish electrical connection with a printed board 12 (column 5, lines 40-50) to which the ground terminal is mounted.

-- In reference to Claim(s) 7, Reimer teaches (column 5, lines 40-50) the ground terminal body 10 is soldered to a solder portion formed as a connection portion 16 in the printed board 12.

-- In reference to Claim(s) 12, Reimer shows (figure 3) the plurality of connection portions 18 are comprised of two connection portions each having a wide tip end portion (near the lead line of numeral 19) facing that of another connection portion.

** Claim(s) 1,4,10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Kotani et al. (5877673).

-- In reference to Claim(s) 1, Kotani shows (figure 4A)

a ground terminal 29 that has

a ground terminal body 29b formed into an annular shape (column 7, line 50) as viewed in plan; and

at least one connection portion 29e formed integrally with

Art Unit: 2833

the ground terminal body 29b , the connection portion 29e being bendable (as best seen in figure 4A) and extending from an inner circumference of the ground terminal body 29b toward a center of the ground terminal 29.

In particular reference to the recitation “ground” this is seen to be for the intended use of the claimed structure and is given little patentable weight, since it has been held a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Further, the claim language is not seen to claim any structure that would inhibit the reference from being used for the same purpose as the intended use recitations of the claim.

-- In reference to Claim(s) 4, Kotani shows (figure 4B)

the ground terminal 29 has a plurality of connection portions 29e that are formed integrally with the ground terminal body 29b and spaced from one another in a direction of the inner circumference of the ground terminal body 29b, these connection portions being bendable (figure 4A) and extending from the inner circumference of the ground terminal body 29e toward the center of the ground terminal 29.

-- In reference to Claim(s) 10, Kotani shows (figure 4B) the connection portion 29e of the ground terminal 29 has a tip end (figure 4B) thereof formed into an arcuate shape.

-- In reference to Claim(s) 11, Kotani shows (figure 4B) each of the plurality of connection portions 29e of the ground terminal 29 has a tip end thereof formed into an arcuate shape (figure 4B).

Claim Rejections - 35 USC § 103

- The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

** Claim(s) 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reimer.

-- In reference to Claim(s) 3, Reimer shows substantially the invention as claimed. However, Reimer does not show the connection portion 18 of the ground terminal has a length larger than a thickness of a printed board 12 (column 3, line 71) in which a mounting hole used to mount the ground terminal on the printed board is formed.

This language is seen to be claiming the relative length or distance of the connection portion relative to the thickness of the printed board.

Where general conditions of the claim are disclosed in the prior art, it is not inventive to discover optimal length or dimensions by routine experimentation.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to decrease the thickness of Reimer's printed board 12, since it has been held that variations in the distance would have been obvious minor adjustments without patentable significance. See In re Aller, 105 USPQ 233 (CCPA 1955).

One skilled in the art would be motivated to decrease the thickness of Reimer's printed board 12 in order to decrease the overall thickness of the Reimer' planar receptacle.

** Claim(s) 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Homfeldt.

-- In reference to Claim(s) 14, Homfeldt shows substantially the invention as claimed.

However, Homfeldt does not show each of the plurality of connection portions is formed into an arrowhead shape whose proximal portion is narrow in width.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to choose the shape of the connection portion 16 to be formed into an arrowhead shape whose proximal portion is narrow in width, since applicant has not presented any explanation that this particular shape is anything more than one of numerous configurations a person of ordinary skill in the art would find obvious for the purpose of providing a mating surface between two parts. A change in shape is generally recognized as being within the level of ordinary skill in the art. In re Dailey, 149 USPQ 47 (CCPA 1976).

One skilled in the art would be motivated to choose the arrowhead shape in order to decrease the possibility of the connection portions 16 becoming cross-threaded with the threads on the screw 18.

Allowable Subject Matter

- Claim(s) 8, 9, 13 and 15 have allowable subject matter.
- Claim(s) 8, 9, 13 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not show each of the plurality of connection portions has a first and a second widthwise half, and the first widthwise half of each connection portion is formed at its tip end with a notch to which a tip end of the second widthwise half of an adjacent connection portion enters (claim 8), among the plurality of connection portions, those connection portions other than a pair of opposed connection portions have their length shorter than a length of the paired connection portions, so that tip ends of the long connection portions enter between the short connection portions (claim 9), each of the plurality of connection portions is formed at its proximal portion with a hole (claim 13), each of the plurality of connection portions is formed with an elongated hole extending along a longitudinal axis of the connection portion (claim 15), in combination with all the other elements of the claim and the examiner knows of no permissible motivation to combine the prior art such that the subject matter as a whole would have been obvious at the time the invention was made.

If the application becomes allowable, any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowable Subject Matter".

Reasons for Allowance

- Claim 16 is allowed.
- The following is an examiner's statement of reasons for allowance: The prior art does not show Causing the connection portion of the round terminal to be bent in the mounting hole of the printed board and to be brought in direct contact with the chassis in combination with all the other elements of the claim and the examiner knows of no permissible motivation to combine the

Art Unit: 2833

prior art such that the subject matter as a whole would have been obvious at the time the invention was made.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Effective May 1, 2003, the United States Patent and Trademark Office has a new Commissioner for Patents address. Correspondence in patent related matters must now be addressed to:

Commissioner for Patents

P. O. Box 1450

Alexandria, VA 22313-1450

For additional information regarding the new address, see Correspondence with the United States Patent and Trademark Office, 68 Fed. Reg. 14332 (March 25, 2003).

- The prior art listed on PTO form 892 that is made of record and not relied upon is considered pertinent to applicant's disclosure because it shows the state of the art with respect to applicant's claimed invention. In particular reference to Tracy, Tracy shows a round contact with fingers that could be used for grounding.
- Any inquiry concerning this communication or earlier communications from the examiner should be directed to James R. Harvey whose telephone number is 571-272-2007. The examiner can normally be reached on 8:00 A.M. To 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on 571-272-2800 extension 33.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2800.

- Effective **October 1, 2003**, all patent application related correspondence transmitted by facsimile must be directed to the central facsimile number, **(703) 872-9306**, with a few exceptions. *See Fax Automation in Technology Center 1700, 1237 Off. Gaz. Pat. Office* 140 (August 29, 2000). Replies to Office actions including after-final amendments that are transmitted by facsimile must be directed to the central facsimile number. Unofficial correspondence such as draft proposed amendments for interviews may continue to be transmitted by facsimile to the Technology Centers.
- Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James R. Harvey, Examiner

jrh
February 7, 2005

A handwritten signature in black ink, appearing to be 'JRH', with a long horizontal flourish extending to the right.